

What is claimed is:

1 1. A telephone subscriber call signal control device for calling
2 a telephone set connected to a subscriber circuit by means of a ringing
3 signal when an incoming call is outputted from a subscriber circuit
4 terminating device wherein:

5 said subscriber circuit terminating device comprises:

6 a zero crossing point detection circuit for generating a zero
7 crossing point synchronization signal synchronous with a zero potential
8 of said ringing signal, and an order output timing adjustment circuit
9 for adjusting output timing of a ringing control order for controlling
10 a ringing relay of said subscriber circuit synchronously with the zero
11 crossing point synchronization signal, and

12 said telephone set is called by said ringing signal through said
13 subscriber circuit synchronously with said zero crossing point
14 synchronization signal in accordance with reception of an order to
15 output a command to turn on said ringing relay from an order output
16 device connected to said subscriber terminating device.

1 2. A telephone subscriber call signal control device according to
2 claim 1, wherein

3 said subscriber circuit terminating device comprises an order
4 buffering section specifying said subscriber circuit ringing said
5 ringing signal in accordance with the reception of the order from said
6 order output device, provided for said subscriber circuit and taking
7 timing by delaying said order reception signal.

1 3. A subscriber circuit terminating device, including a ringing
2 signal transmission device, for supplying a ringing signal to a

3 subscriber circuit, comprising:

4 a zero crossing point detection circuit generating a zero crossing
5 point synchronization signal synchronous with a zero potential of said
6 ringing signal;

7 an order output timing adjustment circuit adjusting output timing
8 of a ringing control order controlling a ringing relay of said subscriber
9 circuit synchronously with said zero crossing point synchronization
10 signal; and an order development circuit inputting an order reception
11 signal from an order output device and analyzing said order reception
12 signal, wherein

13 a telephone set is called by said ringing signal through said
14 subscriber circuit synchronized with said zero crossing point
15 synchronization signal by said order output timing adjustment circuit
16 in accordance with the order reception signal from said order output
17 device.

18 4. A subscriber circuit terminating device according to claim 3,
19 wherein

20 said order output timing adjustment circuit comprises:

21 an order drop circuit specifying said subscriber circuit in
22 response to said order reception signal analyzed by said order
23 development circuit, and outputting said order reception signal to
24 the subscriber circuit;

25 an order buffering section temporarily storing said order
26 reception signal; and

27 an order output control circuit controlling timing of said order
28 reception signal synchronously with said zero crossing point
29 synchronization signal.

Diagram 1: 123456789101112

Diagram 2: 123456789101112

Diagram 3: 123456789101112

Diagram 4: 123456789101112

3 said order drop circuit, said order buffering section and said
4 order output control circuit are constituted out of one LSI circuit.